

VETS

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ECOM VETS

A Complete Diesel Emissions Measurement System



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Vehicle Emission Testing System

VETS

A diagnostic tool that delivers fast, accurate results

ECOM America, a leading manufacturer of industrial emission test equipment, proudly introduces the VETS Diesel / LNG Emissions & Smoke Test System

Based on the proven reliability and success of ECOM's portable emission analyzers, the VETS system was developed from years of experience using diesel engine emission monitoring as a diagnostic tool. Combined with a comprehensive maintenance program, companies have achieved reductions of up to 65% on CO and 55% on DPM, without the expense of alternative fuels and after-treatment devices. In addition, a 3% to 5% savings in fuel consumption has been realized, translating to a significant impact on the bottom line. This concept has become known as Emissions Based Maintenance.



Vehicle Emission Testing System



In addition to displaying all measured parameters, a unique feature of the VETS software program is the ability to calculate real-time mass emissions in grams / brake-horsepower, pounds / hour, and tons / year. With a simple click of the mouse, all measurements, calculations, and vehicle information is recorded and stored in a standard spreadsheet format. A simple summary report can be viewed instantaneously and compares current emission levels with previous test results for the specific vehicle.

The VETS System combines a gas analyzer measuring O₂, CO, CO₂, NO_x, Hydrocarbons, Opacity, Exhaust Temperature, Oil Temperature, RPM, and Exhaust Back-pressure. The system incorporates a high flow pump with EPA compliant sample conditioning techniques to deliver a clean, cool, and properly conditioned exhaust sample to the gas analyzer.

The VETS program builds folders for each vehicle in the fleet where all test results are stored, allowing simple access to all test histories. The VETS Database includes VIN, make & model, engine type, horsepower, fuel flow rate, mileage, emission equipment, and



Used as an integral part of a scheduled maintenance program, VETS will immediately identify problems related to the combustion process and of the following systems:

- Intake
- Fuel
- Exhaust

more. Fuel information for Diesel, Natural Gas, Propane, Butane, and Gasoline is pre-programmed, and can be modified for fuel blends or alternative fuels.

While VETS was developed primarily as a diagnostic tool, current and future diesel emissions regulations will require periodic compliance-driven testing. Some states now mandate smoke testing and more can be expected to follow. VETS offers a simple, reliable, and inexpensive way to meet these requirements. But the true benefit of VETS, when used as an integral part of a scheduled maintenance program, is immediate notification of problems related to Intake Systems, Fuel Systems, Exhaust Systems, and of course, the Combustion Process.

The VETS Customer, including Municipal Transit Systems, Trucking Companies, Courier Fleets, Rail and Marine Freight, and similar fleet owners who consider saving money while under regulatory pressure to reduce vehicle emissions important to the future of their business, should consider VETS a valuable part of their maintenance operations.



VETS

Flexible Purchase Options! Ask about 12, 24, & 36 month leases, with scheduled maintenance included. For more information, or to request a free demonstration CD, please contact ECOM, Toll-Free at 877.326.6411 or email info@ecomusa.com.

Description & Technical Specifications

ECOM VETS Emission Testing System

Emission Analyzer – Includes O₂, CO, NO, NO₂ Gas Sensors, Temperature and Backpressure Sensors, CO₂ Calculation, Thermoelectric Peltier Gas Cooler & 30' Heated Sample Line (EPA compliant type sample conditioning), 13" Probe, 1 package Smoke Test Filters & Smoke Test Comparison Chart, 2 packages Particulate Filters, 5 NO_x/SO₂ Filter Cartridges, RS232 Cable, and Operation Manual (on CD-ROM). Analyzer built into a Mobile Enclosure, complete with PC System and VETS Software License.

Hydrocarbon Analyzer (optional) – Heated Flame Ionization Detector, Multi-range 0 – 10, 0 – 100, 0 – 1,000, 0 – 10,000 ppm

Opacity Meter (optional) – Partial Flow or Full Flow Sensor Head, Extension Pole appropriate to sensor head, 25' Connecting Cable, RPM Sensor Assembly, Oil Temperature Probe, Melles Griot Neutral Density Filter (.2).



PARAMETER	RANGE	RESOLUTION	ACCURACY
Oxygen	0.0 – 21.0%	0.1%	± 0.1% of reading
Carbon Monoxide	0 – 4,000/40,000 ppm	1.0 ppm	± 2% of reading
Nitric Oxide	0 – 4,000 ppm	1.0 ppm	± 2% of reading
Nitrogen Dioxide	0 – 500 ppm	1.0 ppm	± 2% of reading
NO _x (NO + NO ₂)	0 – 4,500 ppm	1.0 ppm	± 2% of reading
CO ₂ (calculated)	0.0% – Fuel Max%	0.1%	± 1% of scale
Hydrocarbons* (HFID)	0 – 10/100/1,000/10k ppm	0.1 ppm	± 2% of reading
Opacity (optional)	0 – 100%	0.1%	± 2% of reading
Oil Temperature	32 – 250° F	1 degree	± 3% of reading
RPM-Engine Speed	0 – 10,000	1 RPM	± 3% of reading
Exhaust Temperature	32 – 1,800° F	1 degree	± 3% of reading
Exhaust Backpressure	± 40" H ₂ O	0.1" H ₂ O	± 3% of reading

*Hydrocarbons measurement by Heated Flame Ionization Detector

Consumables

Part **#71283** Smoke Test Paper (200 disks/bag)

Part **#75316** Particulate Filters (10 pkg.)

Part **#71292** NO_x/SO₂ Filter Cartridges.



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